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ABSTRACT

The relationships among scores on the National Teacher Examinations (NTE) and the Pre-Professional Skills Test (PPST) and scores achieved on objectively scored observation instruments were studied in 100 graduates of teacher preparation programs at Tennessee Technological University (Cookeville). Of these, 62 had completed the NTE and 27 had taken the PPST. The Classroom Observation Keyed for Effectiveness Research instrument was used to evaluate some of these teachers in the spring of 1987, and the low inference observation instrument of the Kentucky Career Ladder Program was used for those observed in 1988. There was little relationship between scores on the NTE or the PPST and the observation system utilized. These tests provided little information that was useful in predicting the success of the individual in the classroom. Nevertheless, these tests did provide information useful for determining student deficiencies in potential basic skills areas. It is suggested that the NTE and the PPST not become the sole criteria for admission to study in professional education or for licensure as a teacher. Four tables are provided. (SLD)

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THE NTE, PSST, AND CLASSROOM PERFORMANCE

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THE NTE, PPST AND CLASSROOM PERFORMANCE[1]

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The National Teacher Examinations (NTE) were first introduced in 1940 as a measure of an individual's potential performance as a teacher in the classroom. Over the years these tests have been revised and have come into wide spread use Rudner (1988) reported that 22 states required prospective teachers to complete the NTE prior to licensure and additional states were considering adoption of the requirement. In 1983 a companion test, the Pre-Professional Skills Tests (PPST) was introduced as a measure of a student's ability in the basic areas of reading, writing, and mathematics. The PPST is being used by 13 states as one criteria for admission to formal study in professional teacher education programs (Rudner, 1988).

In the past five years there has been a renewed interest in the preparation of teachers and numerous reforms are occurring in teacher education programs. Legislators and others are seeking ways to be accountable to the public and to "improve the quality of teachers in the classrooms." As a result a interest has been shown in utilizing test scores to justify the quality of higher education. The PPST is becoming more widely used as a requirement for admission to study in professional teacher education programs and prospective teachers are being required to achieve higher and higher scores on the NTE as a requirement to achieve a license or certificate to teach. In effect achievement on the PPST has become a requirement for licensure as a teacher.

Many individuals have questioned the use of the PPST and NTE as absolute measures of an individual's ability as a classroom teacher. The true test of an individual as a teacher is the ability to perform in the classroom. Direct observation in the classroom is the key to determining performance.

Ayers and Qualls (1979) examined the concurrent and predictive validity of the National Teacher Examinations(NTE) that were in use during the period from 1974 through 1978. More specifically they examined the relationships between scores on the NTE achieved by a sample of graduates of the teacher education programs of Tennessee Technological University, who were teaching in their first year and, respectively, ratings made by their principals, student ratings of the graduates, and ratings made by independent observers utilizing object scored instruments. The observation instruments were specifically designed to measure the classroom climate and the interaction between pupils and teacher. The instruments included Flanders Interaction Analysis (Amidon & Flanders, 1971), the Classroom Observation Record (Ryans, 1960), and the Tuckman Teacher Feedback Form (Tuckman, 1976).

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In 1984 and 1985, Ayers (1988) replicated the earlier study utilizing the same instrumentation for observation and ratings of performance in the classroom and a sample of graduates of Tennessee Technological University who had completed the revised version of the NTE. The results from both the 1979 and 1988 studies were quite similar. The relationships between scores from the NTE and, respectively, rating devices and observation instruments were low and not significant. If it was assumed that the data collected through the use of the observation instruments and the other devices was valid, the NTE was of little value in predicting success in the classroom.

Siebert (1989) and Ayers (1988) examined the relationships between the NTE and the PPST. As would be expected there were moderate to strong relationships between the three tests of the NTE Core Battery and the three sub-test of the PPST. Correlations were on the order to 0.5 to 0.8. The PPST appeared to be a reasonable predictor of scores on the NTE.

The Center for Teacher Education Evaluation at Tennessee Technological University has been making a series of studies of various types of observation instruments that can be used to determine the level of performance of teachers in the classroom. The observation instruments are based on established principals of assessment and appear to provide a measure of an individuals ability to perform in the classroom. During the past two years the Center has collected observation data on graduates of both bachelors' and master's degree programs utilizing two low inference observation instruments. The Classroom Observation Keyed for Effectiveness Research instrument (COKER) developed by Coker and Coker (1981) and a modification of a low inference observation instrument utilized in the Kentucky Career Ladder program (KOI) developed at Western Kentucky University (1987) have formed the basis for the research.

Purpose of Study

The purpose of the current study was to continue the work initiated in 1978 to study the relationship between scores from the NTE and scores achieved from the use of objective scored observation instruments. A secondary purpose of the study was to examine the relationship between scores achieved by a sample of graduates on the PPST and the results of the use of observation instruments.

Method

During 1986-87 and 1987-88, 100 graduates of the teacher preparation programs of Tennessee Technological University participated in the studies. The sample included 60 who had completed the bachelor's degree and were in their first year of teaching and 40 who had completed the Master of Arts degree and were in the classroom during the first year after completing the degree. Only those individuals who had completed the bachelor's degree served as subjects for this study. Thirty-four subjects from the Spring of 1987 and 28 from the Spring of 1988 had completed the Core Battery of the NTE. Also, 27 subjects in the 1988 group had completed the PPST as a part of the process of admission to the professional teacher education programs of the University.

A specially trained graduate research assistant visited in the classroom of each graduate on three to five occasions during the Spring of the year. The COKER was used in the Spring of 1987 while the KOI was used in 1988. Scoring of the instruments allowed for the determination on an absolute scale

of observational teaching behaviors. In addition, such measures as grade point averages, scores from a personality test, and children's ratings of performance were obtained on each subject in the study. Pearson Product Moment Correlations were computed between classroom performance measures and scores derived from the NTE, the PPST, and the other measures noted above.

Following is a summary of the symbols and corresponding variables drawn from, respectively, the COKER (Table 1) and the KOI (Table 2). It should be noted that the two instruments measure similar traits that a teacher should exhibit in the classroom.

Table 1. Summary of Characteristics Measured by the COKER

Focus-	Establishes focus of the lesson.
Org. Pres.-	Organizes classroom presentations.
Directions-	Gives clear and easily understood directions.
Participation-	Provides opportunities for students to actively and successfully participates.
Evaluates-	Evaluates student progress and provides feedback.
Org. Class.-	Provides organization in the classroom.
Learn. Time-	Maximizes academic learning time.
Manages-	Effectively manages student behavior.
Logical-	Presents information in a logical sequence.
Cognitive-	Presents information at various cognitive levels.
Clear-	Presents information accurately and clearly.
Strategies-	Utilizes strategies to motivate students and learning.
Environment-	Maintains a supportive environment.

Table 2. Summary of Characteristics Measured by the KOI

Questions-	Utilizes academic questions in an appropriate manner.
Responses-	Degree of responses made to student answers.
Praise-	The degree and amount of praise used by the teacher.
Communications-	Thedegree that responsesbyateacher to students' gave direction, focused their attention orchallenged themto try harder.
Management-	Use of conduct related praise.
Time Manage.-	Concern the teacher had for time-on-task.
Seatwork-	Teacher used seatwork in an effective manner.
BeginsProm.-	The degree towhichtheteacher began classwork promptly.
Focus-	Establishment of academic focus in the classroom.
New Content-	Demonstration of skills related to the presentation of new content.
Questioning-	Demonstration of the use of effective questioning techniques.
Directions-	Provided clear directions during teaching.
Involved-	Demonstration of involvement in the lesson.
Enthusiastic-	The degree to which the teacher demonstrated enthusiasm for learninginthe classroom.

Results

The results of the study were divided into two sections. The first summarized the results obtained in the studies utilizing the COKER. The second section described the results obtained by use of the KOI.

COKER Results

Data were available from a sample of 34 individuals who had completed the bachelor's degree and were in their first year of teaching. Mean scores achieved on the Core Battery of the NTE were as follows: Communication Skills (CS) 663, SD=11: General Knowledge (GK) 659, SD=11; and Professional Knowledge (PK) 661, SD=12. The overall rating of performance of each subject by the building principal was also used in this study. The mean score on a five point scale (1=low to 5=high) was 4.4 (SD=0.7). Table 3 shows a summary of the correlations between the 13 factors from the COKER and the NTE Core Battery scores and the overall principals rating.

Table 3. Product Moment Correlations of Scores from the COKER, the NTE and Overall Principals' Ratings (N=34)[1]

COKER Variables	CS	GK	PK	Prin.
Focus	-04	-21	00	32*
Organizes Presentations	-08	-08	-14	42**
Directions	-20	-21	-19	-03
Participation	28	23	35*	35*
Evaluates	03	-15	11	39*
Organizes Classroom	-32	-50**	-29	32*
Max. Learn. Time	-40*	-38*	-28	11
Manages	-17	-23	03	33*
Logical	05	-12	13	22
Cognitive Levels	35*	24	31	22
Clear Presentations	11	-07	10	37*
Strategies	-03	10	22	21
Environment	-26	26	15	-06

[1]Decimal points omitted.
* $p < .05$
** $p < .01$

Correlations obtained between scores from the observable performance factors from derived from the COKER and scores from the Core Battery of the NTE appeared to have little meaning. A correlation of .35 ($p<.05$) was noted between Professional Knowledge and classroom participation. Also the correlation of 0.35 ($p<.05$) between Communication Skills and presenting materials at various cognitive levels may have some meaning. Assuming that the COKER is a reliable and valid instrument for measuring classroom performance the use of the NTE in predicting success in the classroom was questioned.

Several significant correlations ($p<.05$) were noted between principals' overall ratings of performance and the variables of focus of the lesson, organization of presentations, class participation, evaluation, organization of the classroom, classroom management, and presentation of materials. However, Coker, Medley and Soar (1980), have questioned the validity and reliability of principals ratings of teachers performance.

KOI Results

Data were available from a sample of 38 individuals who had completed the bachelor's degree and were in their first year of teaching. Mean scores achieved on the PPST and the Core Battery of the NTE were as follows: PPST Reading (READ) 174, SD=4; PPST Writing (WRITE) 175, SD=6; PPST Mathematics (MATH) 175, SD=3; NTE Communication Skills (CS) 660, SD=8; General Knowledge (GK) 657, SD=10; and NTE Professional Knowledge (PK) 659, SD=11. The overall ratings of performance of the subjects by the building principals was also used in this study. The mean score on a five point scale (1=low to 5=high) was 4.1 (SD=0.7). Table 4 shows a summary of the correlations between the 14 factors from the KOI and the PPST sub-test scores, NTE Core Battery scores and the overall principals rating.

Table 4. Product Moment Correlations of Scores from the KOI, the NTE, PPST, and Overall Principals' Ratings (N=29)[1]

KOI Variables	READ	WRITE	MATH	CS	GK	PK	Prin.
Questions	-19	-07	10	23	39*	28	50**
Responses	13	16	51**	-00	-01	22	23
Praise	05	-24	-10	-05	-05	-40	06
Communications	00	00	00	19	-31	-33	-02
Management	62**	-06	57**	01	12	00	-05
Time Manage.	34*	14	21	09	18	05	-27
Seatwork	-07	-06	05	-13	-55**	-27	02
BeginsProm.	-22	15	16	-06	08	-13	-22
Academic Focus	-11	-04	26	-04	-24	-17	13
New Content	27	-01	16	11	08	26	46**
Questioning	-50**	-08	-21	-31	-27	-04	23
Directions	16	28	30*	18	-05	05	30
Involved	37*	22	17	27	37*	46**	47**
Enthusiastic	08	-14	-18	03	15	-10	51**

[1]Decimal points omitted.
* $p < .05$
** $p < .01$

Several variables from the KOI were correlated significantly with scores achieved by students on the PPST. However, there is no logical explanation for these results. For example why should should there be a high positive relationship between classroom management and achievement on a reading test and a mathematics test.

An examination of the correlation pattern between the NTE scores and the KOI indicated only two significant correlations that might have an explanation. It was noted that there was a correlation of 0.39 ($p<.05$) between the General Knowledge test of the NTE and the classroom factor of questioning. Also significant correlations were noted between classroom involvement and the General Knowledge ($r=0.37$, $p<.05$) and Professional Knowledge ($r=0.46$, $p<.01$) test from the NTE. These seemed probable knowing the nature of the classrooms and the type information that was covered on the NTE.

Significant correlations were noted between principals' overall ratings and the KOI factors of questioning, presentation of new content, classroom involvement, and enthusiasm. Again, based on the literature these relationships could be questioned.

Implications of the Study

The results of the study have implications for the improvement of teacher education programs. Generally the results of administering the PPST or the NTE provided little information that will be useful in predicting in a quantitative manner the success of an individual after they graduate and enter the classroom. Although there was little relationship between the NTE or the PPST and the observation systems utilized, these instruments still provided information useful in determining student deficiencies in potential basic skills areas. The PPST and NTE should not become, respectively, as they have in several states the sole criteria for admission to study in professional education and licensure as a teacher in the classroom.

This study should be replicated with a larger sample of subjects. Other studies needed to be initiated to determine the best predictors of success in the classroom. Only in this way can students be guided into proper careers during college and in turn the teaching profession will hopefully be improved.

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